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Fleet Solutions - Water Pumps Application Guide



2010

21 – Water Pumps

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Type "O" = OEM P/N, Type "S" = Service P/N

If OEM part # is not found on page listed, refer to the MCR for applicable cross reference.

PURPOSE OF THIS SECTION

This section is designed as a reference for Haldex Commercial Vehicle Systems new and remanufactured air brake system components and accessories, sold under the Haldex and Midland product names. Products described include all pertinent information needed to replace an OEM installed component or to help design an original installation. If there is a service number for a given part, it is noted in the product number table.

DESIGN FLEXIBILITY

The products presented in this section are described by function and usage. Technical data and mounting configurations are also provided. Throughout this section, reference is made to numerous specific OEM applications. This section is not, however, intended to be a mutually exclusive listing of all part numbers and designs available. Should the need for a design not presented occur, contact your Haldex Commercial Vehicle Systems sales representative for additional information.

WARRANTY INFORMATION

Proper service and repair are important to the safe, reliable operation of any motor vehicle. To prevent personal injury and/or vehicle damage, careful and cautious service procedures recommended by the vehicle manufacturer should be followed by anyone servicing a motor vehicle. For details on warranty of Haldex Commercial Vehicle air brake system components and accessories, refer to L20221 Aftermarket Warranty Policy. For warranty returns, use L90005 Warranty Adjustment Form. To obtain further information, visit the www.haldex.com website, select **North America/English** in drop down box then search for **Warranty**.

ORDERING PROCEDURE

Most customers can place electronic orders on the www.haldex.com website by obtaining a username and password or by using EDI. For additional information about electronic orders or to place an order by phone or fax, contact Customer Service in U.S. or Canada at numbers listed below:

U.S. Customer Service:

Phone: 800-643-2374
 Fax: 800-533-1941
 Mail: Commercial Vehicle Systems
 Haldex Brake Products Corporation
 Attn: Customer Service Department
 10930 N. Pomona Ave.
 Kansas City, MO 64153

Canada Customer Service:

Phone: 800-267-9247
 Fax: 519-621-3924
 Mail: Commercial Vehicle Systems
 Haldex Limited
 Canadian Distribution Centre
 Attn: Customer Service Department
 500 Pinebush Road, Unit 1
 Cambridge, Ontario N1T 0A5

IMPORTANT NOTICE

The data listed herein is correct to the best of Commercial Vehicle Systems knowledge and belief, having been compiled from reliable and official sources of information. However, COMMERCIAL VEHICLE SYSTEMS CANNOT ASSUME ANY RESPONSIBILITY for possible error or misapplication of the product. Final determination of the suitability of the products for the use contemplated by the Buyer is the sole responsibility of the Buyer. Commercial Vehicle Systems shall have no responsibility in connection with this suitability. It is not our intention to imply that any of the components in this catalog in connection with an engine make or model are made by any engine manufacturer.

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 10930 N. Pomona Ave.
 Kansas City, MO 64153

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GENERAL INFORMATION

To avoid problems when installing your water pump, follow the simple, step-by-step instructions below. Handle your replacement water pump with care. If the unit is dropped, the internal ceramic seal may crack. **NEVER STRIKE THE SHAFT**, as this can damage the shaft or bearings. Always check the fan, pulleys, belts, and fan clutch. **CAUTION: FOR YOUR PROTECTION, CLOSE HOOD WHEN REVVING ENGINE.**

INSTALLATION INSTRUCTIONS

1. Always drain and flush cooling system if it shows signs of corrosion. Dirt particles in the coolant can cause seal failure. Clean the water pump impeller cavity and gasket surface. Also, check the radiator cap, thermostat, and the fan belt for wear or improper function. Replace if necessary.
2. Carefully install the replacement water pump. **NEVER STRIKE THE SHAFT.** Tighten all bolts in a staggered sequence.
3. Turn pump shaft by hand to check for free rotation. If the shaft does not turn freely then recheck your installation.
4. Check fan belt tension. Belt should deflect 1/2" to 3/4". If the belt is too tight the pump will be damaged.
5. Reconnect hoses and refill cooling system. Be sure there are no leaks.
6. Check the fan blade for bent blades, loose rivets, or any other damage. **NEVER STRAIGHTEN A BENT BLADE.** Replace the entire fan when defects are found.
7. Check the fan clutch (if installed) for loss of oil, looseness or wobble. If there is more than 1/4" of play at the blade edges the bearing is bad and the fan clutch needs to be replaced. A bad or misaligned clutch will damage a water pump.
8. Check fan clearances at blade tip between fan and shroud, and between fan and radiator.
9. Check motor mounts for wear or splitting. Check bolt tightness.
10. Start the engine and run until normal operating temperature is reached. Check for leaks and unusual vibration. **NEVER STAND IN LINE WITH OR NEAR FAN WHEN REVVING THE ENGINE. THE HOOD SHOULD BE CLOSED WHEN REVVING THE ENGINE.**

IMPORTANT!

Leaks, loose fan belts or defective fan clutches cause cooling system problems more often than defective water pumps. Water pump failure can be caused by defective, crooked, or unbalanced fans; defective or unbalanced fan clutches; excessive (too-tight) fan belt tension; dirty cooling systems; insufficient clearance between the fan and the shroud or radiator; loose or broken motor mounts. **MANY FUTURE PROBLEMS CAN BE AVOIDED IF EVERYTHING IS CHECKED OUT WHEN THE WATER PUMP IS REPLACED.**

ITEMS TO REMEMBER

- Handle the replacement water pump with care.
- Always use a new gasket.
- All pumps are greased at the factory – do not add grease.
- Always drain and flush the cooling system.
- Check hoses, clamps, thermostat, and radiator cap. Replace if necessary.
- Check the fan belt. A glazed belt will slip at high RPM. Overtightening will cause damage to the water pump (stress on bearing, broken shaft, broken housing).
- The fan clutch should be free running and in proper balance.
- Check the fan for loose rivets, bent blades, cracked blades, wobble and shroud clearance.

SPECIAL NOTE

When replacing the water pump on a Detroit 60 Series engine, always check for excessive Bull Gear Runout (wear). Excessive runout will lead to premature water pump failure. *Refer to Mfg. Specifications for acceptable Runout and Bull Gear Replacement Guidelines.

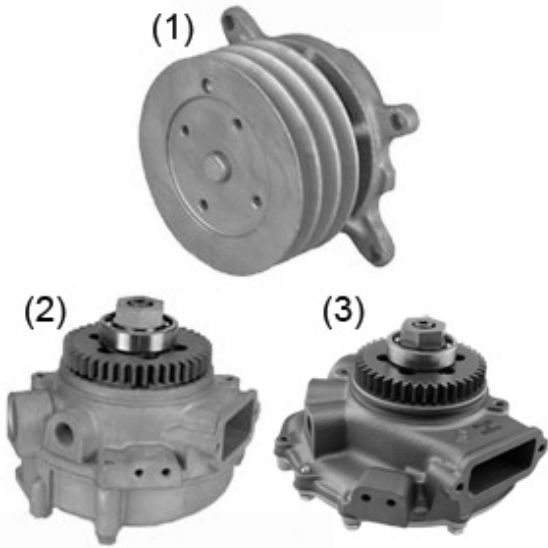
Failure to Replace Worn Bull Gear may result in:

- Excessive gear wear and chipped/broken teeth
- Broken casting near bearing journal
- Failed Bearings

1160 and 3176 Engine

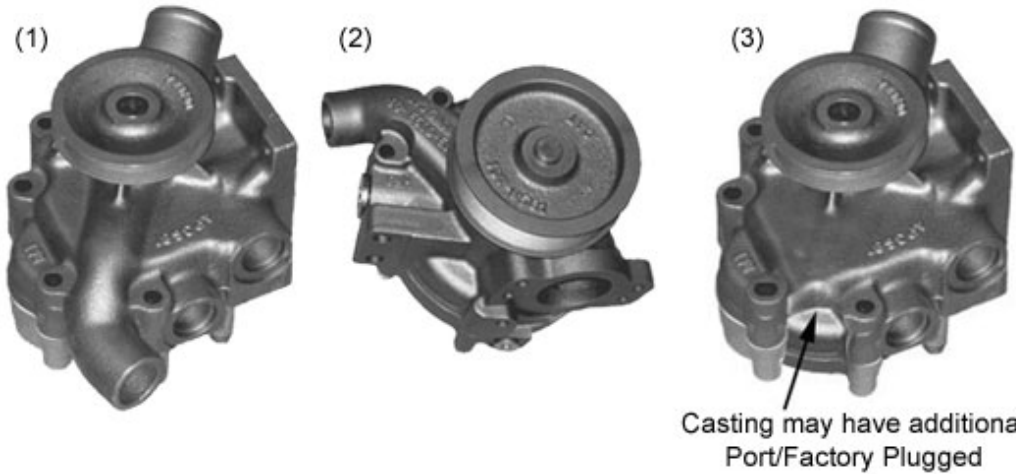
Notes:

- 1) Installation Kits listed later in this section.



SKU#	Product Description	MFG. #	Casting #	Notes	Approx. Weight	Pic. #	Core Group
RW4005X	Remanufactured Water Pump for Caterpillar 1160 Engine	9L7660	9N138	Pressed on Pulley	14 lbs.	1	WP1001
RW4009RX	Remanufactured Water Pump for Caterpillar 3176 Engine – CoreFree™	1025844 (9Y4361)	103-0745	Aluminum Housing & Cover	15 lbs.	2	-
RW4009X	Remanufactured Water Pump for Caterpillar 3176 Engine	1025844 (9Y4361)	103-0745	Aluminum Housing & Cover	15 lbs.	2	WP1054
RW4011RX	Remanufactured Water Pump for Caterpillar 3176B, C-10, C-12 Engines – CoreFree™	1006944 OR0705 OR3709 OR8767	105-4213 105-4214	Cast Iron Housing & Aluminum Cover	20 lbs.	3	WP1063
RW4011X	Remanufactured Water Pump for Caterpillar 3176B, C-10, C-12 Engines	1006944 OR0705 OR3709 OR8767	105-4213 105-4214	Cast Iron Housing & Aluminum Cover	20 lbs.	3	WP1063

3116/3126 Engine



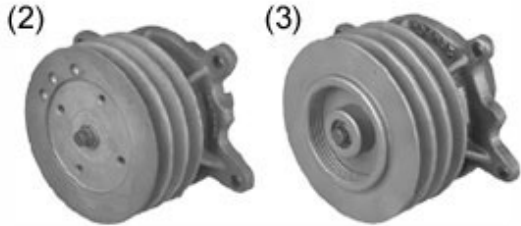
SKU#	Product Description	MFG. #	Casting #	Notes	Approx. Weight	Core Group	Pic. #
RW4015X	Remanufactured Water Pump for Caterpillar 3116/3126	4P3682	4P3681 187-8957-00 7W3780	3.75" Pulley	15.8 lbs.	WP1066	1
RW4016X	Remanufactured Water Pump for Caterpillar 3116/3126	OR3007 4W0253 9V4879 OR1013 4P3683	4P3681 187-8957-00 7C7890 Pulley	4.37" Pulley	14.5 lbs.	WP1066	1
RW4017X	Remanufactured Water Pump for Caterpillar 3116/3126	227-4299 227-4301 10R5407	203-6093 Housing 226-6051 Backing Plate 197-9581 Pulley	Multi-Groove Pulley Pressed on Gear	15 lbs.	WP1067	2
RW4018X	Remanufactured Water Pump for Caterpillar 3116/3126	-	128-5121	3.75" Pulley	14.5 lbs.	WP1066	3
RW6015	New Water Pump for Caterpillar 3116/3126	4P3682	4P3681 187-8957-00 7W3780	3.75" Pulley	19.6 lbs.	-	1
RW6016	New Water Pump for Caterpillar 3116/3126	OR3007 4W0253 9V4879 OR1013 4P3683	4P3681 187-8957-00 7C7890 Pulley	4.37" Pulley	14.5 lbs.	-	1

3208 Engine



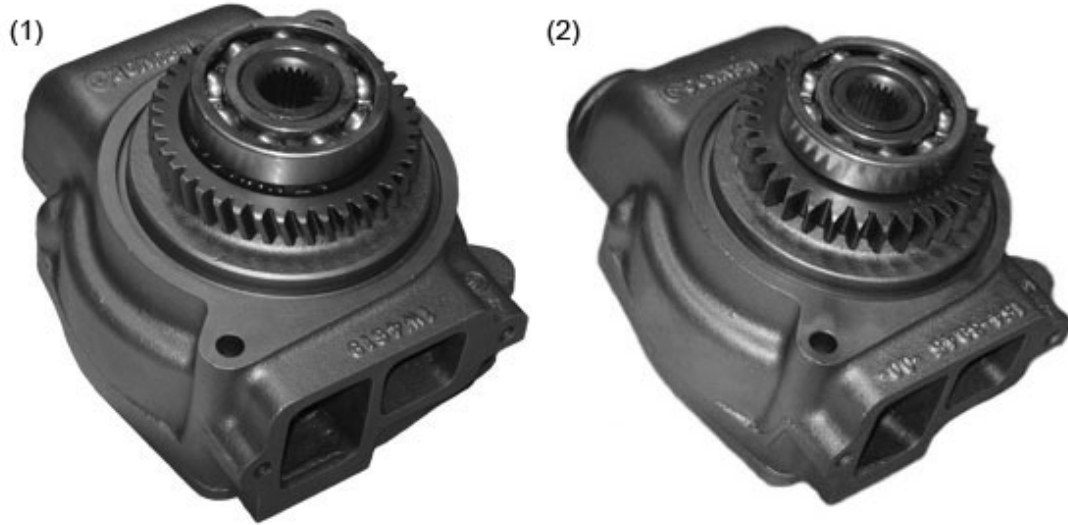
Notes:

- 1) Installation Kits listed later in this section.



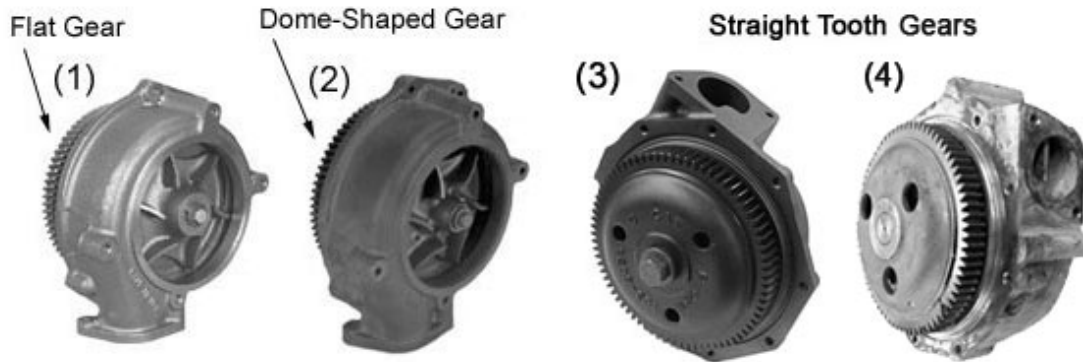
SKU#	Product Description	MFG. #	Casting #	Notes	Approx. Weight	Pic. #	Core Group
RW1162	New Water Pump for Caterpillar 3208 Engine	2W1225	9N3076	Bolt on Pulley (3 belt)	16.0 lbs.	2	-
RW1162RX	Remanufactured Water Pump for Caterpillar 3208 Engine – CoreFree™	2W1225	9N3076	Bolt on Pulley (3 belt)	16.0 lbs.	2	-
RW1162X	Remanufactured Water Pump for Caterpillar 3208 Engine	2W1225	9N3076	Bolt on Pulley (3 belt)	16.0 lbs.	2	WP1001
RW1407RX	Remanufactured Water Pump for Caterpillar 3208 Engine – CoreFree™	2W1227	9N3076	Threaded Pulley (for fan clutch)	17.5 lbs.	3	-
RW1407X	Remanufactured Water Pump for Caterpillar 3208 Engine	2W1227	9N3076	Threaded Pulley (for fan clutch)	17.5 lbs.	3	WP1001
RW4001X	Remanufactured Water Pump for Caterpillar 3208 Engine	2W1225 (9N6147)	9N3076	No Pulley	10.0 lbs.	1	WP1042

3306 Engine



SKU#	Product Description	MFG. #	Casting #	Notes	Approx. Weight	Pic. #	Core Group
RW4007X	Remanufactured Water Pump for Caterpillar 3306 Engine	6N8413	7N196 1W9619 172-7829 1543945	Angled Teeth	30.0 lbs.	1	WP1028
RW4008X	Remanufactured Water Pump for Caterpillar 3306 Engine	OR9493 OR8532 4P9862	7N196 1W9619 172-7829 1543945	Straight Teeth	29.0 lbs.	2	WP1028

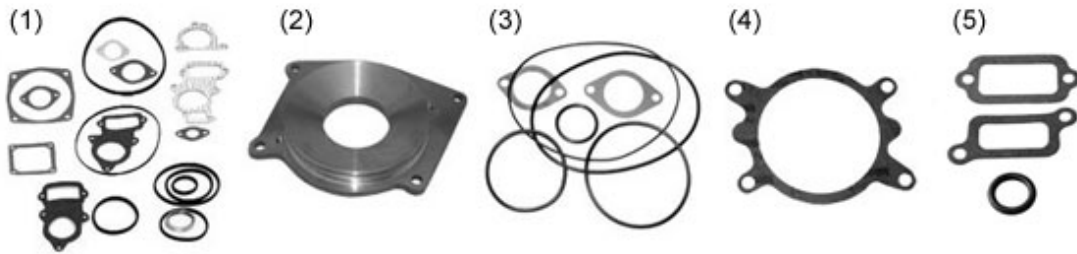
3406, C15, C18 Engine



Installation Kits listed later in this section.

SKU#	Product Description	MFG. #	Casting #	Notes	Approx. Weight	Pic. #	Core Group
RW1017X	Remanufactured Water Pump for Caterpillar C15, C18 – Straight Tooth Gear	10R2776 10R3326	244-3237	Gear Driven Straight Gear 8" opening R & R Only Call for Availability	40.0 lbs.	4	WP1055
RW1194	New Water Pump for Caterpillar 3406B/C Engine – Flat Gear	7W7019 7C4957 OR8217	9N5034	Gear Driven	40.0 lbs.	1	–
RW1194PRX	Premium Remanufactured Water Pump for Caterpillar 3406B/C Engine – Flat Gear – CoreFree™	7W7019 7C4957 OR8217	9N5034	Gear Driven Premium Oil & Water Seal Design Includes basic O-rings and Gaskets for the Pump only	40.0 lbs.	1	–
RW1194PX	Premium Remanufactured Water Pump for Caterpillar 3406B/C Engine – Flat Gear	7W7019 7C4957 OR8217	9N5034	Gear Driven Premium Oil & Water Seal Design Includes basic O-rings and Gaskets for the Pump only	40.0 lbs.	1	WP1002
RW6012RX	Remanufactured Water Pump for Caterpillar 3406B/C/E Engine – Dome-Shaped Gear – CoreFree™	613890 OR4120 OR8330 OR8218 10R0483	100-7479	Gear Driven Includes basic O-rings and Gaskets for the Pump only	39.5 lbs.	2	–
RW6012X	Remanufactured Water Pump for Caterpillar 3406B/C/E Engine – Dome-Shaped Gear	613890 OR4120 OR8330 OR8218 10R0483	100-7479	Gear Driven Includes basic O-rings and Gaskets for the Pump only	39.5 lbs.	2	WP1029
RW6014X	Remanufactured Water Pump for Caterpillar C15 – Straight Tooth Gear	10R0484	–	Gear Driven; Bolt on Gear Includes basic O-rings and Gaskets for the Pump only	40.0 lbs.	3	WP1068

Installation Kits



SKU#	Product Description	Application	Notes	Pic. #
1162KIT	Installation Kit for Caterpillar 3208 Engine Water Pump	RW1162, RW1162X, RW1407X, RW4001X	-	4
1194KIT	Installation Kit for Caterpillar 3406 B/C Engines Water Pump	RW1194, RW1194PX, RW6012X	-	3
4009KIT	Installation Kit for Caterpillar 3176 Engine Water Pump	RW6009, RW4009X	-	5
RW1194BPK	Back Plate Kit for Caterpillar 3406 Water Pump	RW1194X, RW1194PX	-	2
RW5922K	Premium Installation Kit for 3406 B/C Engines Water Pump	RW1194, RW1194PX, RW6012X	Contains additional gaskets for water line plumbing.	1

B & C-Series Engine



Notes:

- 1) Installation Kits listed later in this section.

SKU#	Product Description	MFG. #	Casting #	Application	Approx. Weight	Pic. #	Core Group	New Part #
RW6075	New Water Pump for Cummins B-Series Engine	3802358 (3802004)	3913132	B-Series Engine 4 & 6 Cylinder	5.9 lbs.	1	-	-
RW6075RX	Remanufactured Water Pump for Cummins B-Series Engine - CoreFree™	3802358 (3802004)	3913132	B-Series Engine 4 & 6 Cylinder	5.9 lbs.	1	-	RW6075
RW6075X	Remanufactured Water Pump for Cummins B-Series Engine	3802358 (3802004)	3913132	B-Series Engine 4 & 6 Cylinder	5.9 lbs.	1	WP1047	RW6075
RW6077	New Water Pump for Cummins C-Series Engine	3802081	3903357	C-Series Diesel Engine	8.5 lbs.	2	-	-
RW6077RX	Remanufactured Water Pump for Cummins C-Series Engine - CoreFree™	3802081	3903357	C-Series Diesel Engine	8.5 lbs.	2	-	RW6077
RW6077X	Remanufactured Water Pump for Cummins C-Series Engine	3802081	3903357	C-Series Diesel Engine	8.5 lbs.	2	WP1043	RW6077

ISC & ISL Models



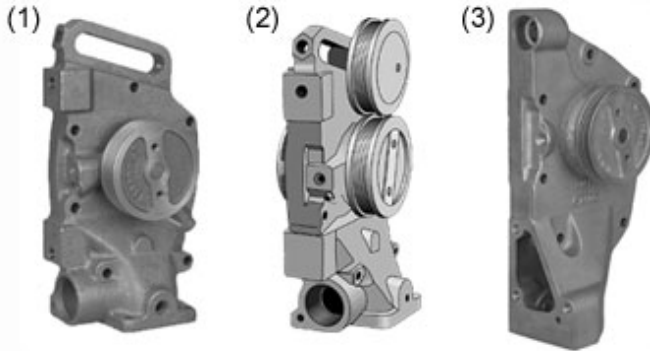
SKU#	Product Description	MFG. #	Casting #	Application	Approx. Weight	Core Group	New Part #
RW6079	New Water Pump for Cummins Models ISC & ISL	3804927 3940052 4089647 (NX)	2370-10C	Models ISC & ISL 8.3 Liters	7.2 lbs.	-	-
RW6079RX	Remanufactured Water Pump for Cummins Models ISC & ISL – CoreFree™	3804927 3940052 4089647 (NX)	2370-10C	Models ISC & ISL 8.3 Liters	7.2 lbs.	-	RW6079
RW6079X	Remanufactured Water Pump for Cummins Models ISC & ISL	3804927 3940052 4089647 (NX)	2370-10C	Models ISC & ISL 8.3 Liters	7.2 lbs.	WP1050	RW6079

ISX Engine



SKU#	Product Description	MFG. #	Casting #	Application	Approx. Weight	Core Group
RW4069X	Remanufactured Water Pump for Cummins Engine ISX	4026702	2201-10C	ISX Engine	38.9 lbs.	WP1007
RW6069	New Water Pump for Cummins Engine ISX	4026702	2201-10C	ISX Engine	35 lbs.	-

Big Cam Engine



Notes:

1) Installation Kits listed later in this section.

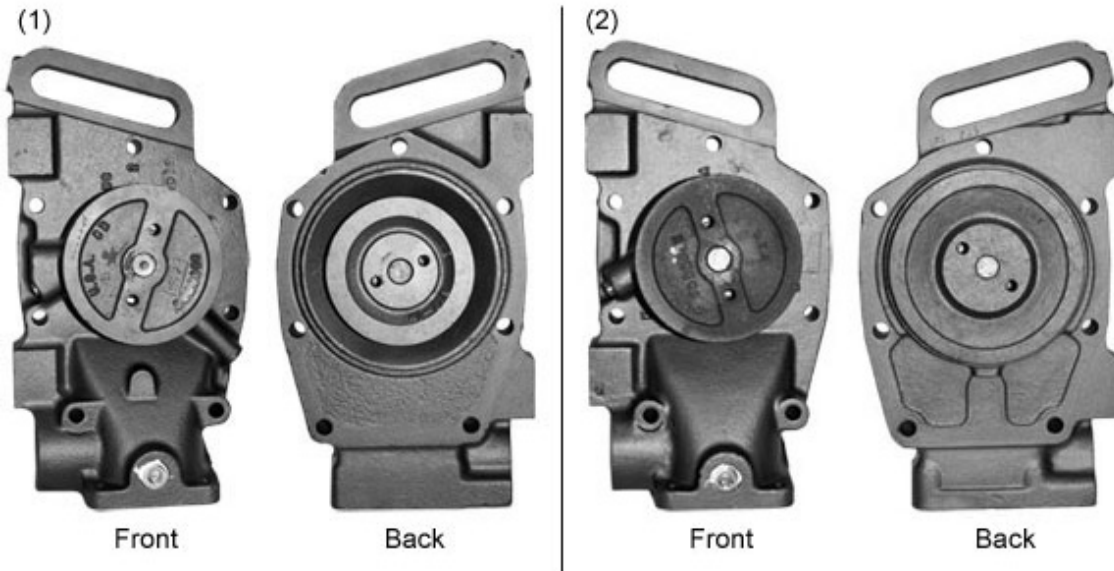
SKU#	Product Description	MFG. #	Casting #	Description	Application	Wt.	Pic. #	Core Group	New Part #
RW1061	New Water Pump for Cummins Big Cam III Engine	3004923	218274	Multi-Groove Pulley 4" Impeller Vented	NTC300, 350, 400; Formula 300, 350, 400, 475	26.0 lbs.	1	-	-
RW1061RX	Reman. Water Pump for Cummins Big Cam III Engine - CoreFree™	3004923	218274	Multi-Groove Pulley 4" Impeller Vented	NTC300, 350, 400; Formula 300, 350, 400, 475	26.0 lbs.	1	-	RW1061
RW1061X	Reman. Water Pump for Cummins Big Cam III Engine	3004923	218274	Multi-Groove Pulley 4" Impeller Vented	NTC300, 350, 400; Formula 300, 350, 400, 475	26.0 lbs.	1	WP1003	RW1061
RW1170	New Water Pump for Cummins Big Cam III, IV Engine	3022474 (3801788)	218274	4.675 Diameter Multi-Groove Pulley 4-1/2" Impeller Vented	NTC290, 350, 400; Formula 290, 350	26.0 lbs.	1	-	-
RW1170RX	Reman. Water Pump for Cummins Big Cam III, IV Engine - CoreFree™	3022474 (3801788)	218274	4.675 Diameter Multi-Groove Pulley 4-1/2" Impeller Vented	NTC290, 350, 400, Formula 290, 350	26.0 lbs.	1	-	RW1170
RW1170X	Reman. Water Pump for Cummins Big Cam III, IV Engine	3022474 (3801788)	218274	4.675 Diameter Multi-Groove Pulley 4-1/2" Impeller Vented	NTC290, 350, 400; Formula 290, 350	26.0 lbs.	1	WP1003	RW1170
RW1172	New Water Pump for Cummins Big Cam IV Engine	3801708	3045163	4.275 Diameter Multi-Groove Pulley 4-1/2" Impeller Vented	300, 350, 400, Fleet 300, NTC-Formula 300, 350, 400, NTC-475	27.0 lbs.	1	-	-
RW1172RX	Reman. Water Pump for Cummins Big Cam IV Engine - CoreFree™	3801708	3045163	4.275 Diameter Multi-Groove Pulley 4-1/2" Impeller Vented	300, 350, 400, Fleet 300, NTC-Formula 300, 350, 400, NTC-475	27.0 lbs.	1	-	RW1172
RW1172X	Reman. Water Pump for Cummins Big Cam IV Engine	3801708	3045163	4.275 Diameter Multi-Groove Pulley 4-1/2" Impeller Vented	300, 350, 400, Fleet 300, NTC-Formula 300, 350, 400, NTC-475	27.0 lbs.	1	WP1003	RW1172

21-WATER PUMPS

Cummins

RW1176	New Water Pump for Cummins 88 Big Cam IV Engine	3803138 (3803030)	3062899	Multi-Groove Pulley	NTC-300, 315, 350, 365, 400	23.5 lbs.	3	-	-
RW1176RX	Reman. Water Pump for Cummins 88 Big Cam IV Engine - CoreFree™	3803138 (3803030)	3062899	Multi-Groove Pulley	NTC-300, 315, 350, 365, 400	23.5 lbs.	3	-	RW1176
RW1176X	Reman. Water Pump for Cummins 88 Big Cam IV Engine	3803138 (3803030)	3062899	Multi-Groove Pulley	NTC-300, 315, 350, 365, 400	23.5 lbs.	3	WP1031	RW1176
RW1177RX	Reman. Water Pump for Cummins Big Cam III (GMC) Engine - CoreFree™	3027174	3045163	4" Impeller Multi-Groove Pulley	NTC 290, 350, 400	28.0 lbs.	1	-	RW6067
RW1177X	Reman. Water Pump for Cummins Big Cam III (GMC) Engine	3027174	3045163	4" Impeller Multi-Groove Pulley	NTC 290, 350, 400	28.0 lbs.	1	WP1003	RW6067
RW3000	New Water Pump for Cummins Big Cam Engine	3045943	3045163	Multi-Groove Pulley & Idler	-	30.0 lbs.	2	-	-
RW6067	New Water Pump for Cummins Big Cam III (GMC) Engine	3027174	3045163	4" Impeller Multi-Groove Pulley	NTC 290, 350, 400	28.0 lbs.	1	-	-

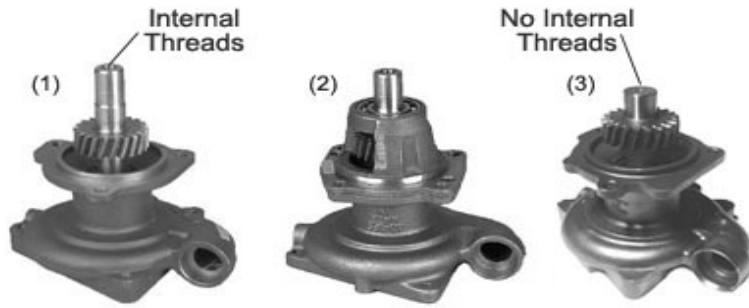
Small Cam Engine



Installation Kits listed later in this section

SKU#	Product Description	MFG. #	Casting #	Description	Application	Approx. Weight	Core Group	New Part #	Pic. #
RW1067RX	Remanufactured Water Pump for Cummins Small Cam FFC Engine - CoreFree™	3024671	-	Multi-Groove Pulley 4" Impeller Non-Vented	NTC230	26.4 lbs.	-	-	1
RW1067X	Remanufactured Water Pump for Cummins Small Cam FFC Engine	3024671	-	Multi-Groove Pulley 4" Impeller Non-Vented	NTC230	26.4 lbs.	WP1003	-	1
RW1171	New Water Pump for Cummins Small Cam FFC Engine	3000886 3801784 (AR45090)	219040 210238	7 Hole Mount 2 Groove Pulley 5-1/4" Impeller Non-Vented	NTC270-CT, 290, 290R, 350, 355; NT855-C280, C310, C360, NT310	28.0 lbs.	-	-	2
RW1171RX	Remanufactured Water Pump for Cummins Small Cam FFC Engine - CoreFree™	3000886 3801784 (AR45090)	219040 210238	7 Hole Mount 2 Groove Pulley 5-1/4" Impeller Non-Vented	NTC270-CT, 290, 290R, 350, 355; NT855-C280, C310, C360, NT310	28.0 lbs.	-	RW1171	2
RW1171X	Remanufactured Water Pump for Cummins Small Cam FFC Engine	3000886 3801784 (AR45090)	219040 210238	7 Hole Mount 2 Groove Pulley 5-1/4" Impeller Non-Vented	NTC270-CT, 290, 290R, 350, 355; NT855-C280, C310, C360, NT310	28.0 lbs.	WP1003	RW1171	2

L-10 and M-11 Engine

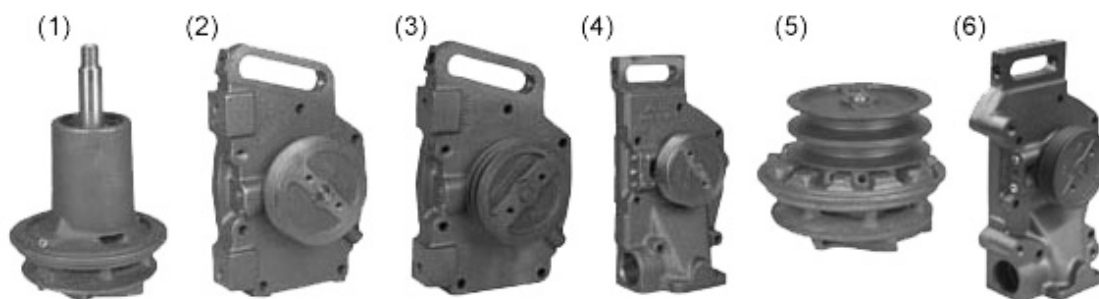


Notes:

- 1) Needle Bearing Kit not supplied with **RW4076X** and **RW4076RX**.
- 2) Installation Kits listed later in this section.

SKU#	Product Description	MFG. #	Casting #	Description	Application	Approx. Weight	Pic. #	Core Group	New Part #
RW1178RX	Reman. Water Pump for Cummins LTA10 Series and M-11 Engine; Before 1991 – CoreFree™	3803402 (3801840)	3039182	4-Hole Mount	LTA10-240, 270, 300 Engines	21 lbs.	2	–	RW6068
RW1178X	Reman. Water Pump for Cummins LTA10 Series and M-11 Engine; Before 1991	3803402 (3801840)	3039182	4-Hole Mount	LTA10-240, 270, 300 Engines	21 lbs.	2	WP1034	RW6068
RW4076RX	Reman. Water Pump for Cummins L-10 Series and M-11 Engine; 1991 and After – CoreFree™	3803403	3882615	3-Hole Mount	L10-310E L10-330E Engines	18 lbs.	1	–	RW6076
RW4076X	Reman. Water Pump for Cummins L-10 Series and M-11 Engine; 1991 and After	3803403	3882615	3-Hole Mount	L10-310E L10-330E Engines	18 lbs.	1	WP1034	RW6076
RW4077X	Reman. Water Pump for Cummins M-11 ISM Application – Short Shaft	3800745	–	3-Hole Mount Short Shaft	–	18 lbs.	3	WP1065	–
RW6068	New Water Pump for Cummins LTA10 Series and M-11 Engine; Before 1991	3803402 (3801840)	3039182	4-Hole Mount	LTA10-240, 270, 300 Engines	21 lbs.	2	–	–
RW6076	New Water Pump for Cummins L-10 Series Engine; 1991 and After	3803403	3882615	3-Hole Mount	L10-310E L10-330E Engines	18 lbs.	1	–	–

N-Series Engine



Installation Kits listed later in this section

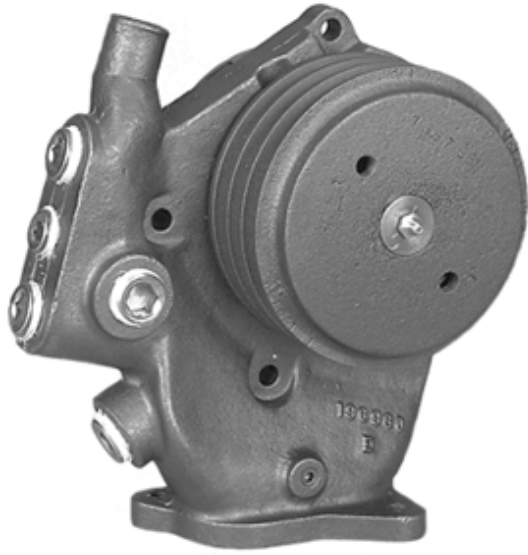
SKU#	Product Description	MFG. #	Casting #	Description	Application	Approx. Weight	Pic. #	Core Group	New Part #
RW1073RX	Reman. Water Pump for Cummins N14 Series Engine – CoreFree™	3803605 (3803361)	3069644 3076523	Multi-Groove Pulley	N14-310, 330, 350, 370, 410 Engines	26.0 lbs.	4	-	RW6073
RW1073VX	Reman. Water Pump for Cummins N14 – Volvo Application	-	3084024	Multi-Groove Pulley	N14 – Volvo	27.8 lbs.	6	WP1045	-
RW1073X	Reman. Water Pump for Cummins N14 Series Engine	3803605 (3803361)	3069644 3076523	Multi-Groove Pulley	N14-310, 330, 350, 370, 410 Engines	26.0 lbs.	4	WP1045	RW6073
RW1174	New Water Pump for Cummins NH, NT, & NTC Non-FFC Engines	AR4284	196845	With Pulley Pancake 5-1/2" Bore Short Shaft	NH230, NH250, NHC270, NHE225 Diesel, NT280, NT300, NT310, NT335, NT380, NTA380, NTC280, NTC335, NTC350 Diesel Engines	13.0 lbs.	5	-	-
RW1174RX	Reman. Water Pump for Cummins NH, NT & NTC Non-FFC Engines – CoreFree™	AR4284	196845	With Pulley Pancake 5-1/2" Bore Short Shaft	NH230, NH250, NHC270, NHE225 Diesel, NT280, NT300, NT310, NT335, NT380, NTA380, NTC280, NTC335, NTC350 Diesel Engines	13.0 lbs.	5	-	RW1174
RW1174X	Reman. Water Pump for Cummins NH, NT & NTC Non-FFC Engines	AR4284	196845	With Pulley Pancake 5-1/2" Bore Short Shaft	NH230, NH250, NHC270, NHE225 Diesel, NT280, NT300, NT310, NT335, NT380, NTA380, NTC280, NTC335, NTC350 Diesel Engines	13.0 lbs.	5	WP1004	RW1174
RW1179X	Reman. Water Pump for Cummins	AR45073 (3022471)	3002520	2-Groove Pulley 4" Impeller	NTC Formula 230 Engine	23.0 lbs.	3	WP1005	-

21-WATER PUMPS

Cummins

	NTC230 Engine (Short Suitcase Style)								
RW1195X	Reman. Water Pump for Cummins NTC230 Engine (Short Suitcase Style)	3027882	3002520	Multi-Groove Pulley 4" Impeller	NTC Formula 230 Engine	24.3 lbs.	2	WP1005	-
RW1198RX	Reman. Water Pump for Cummins NH, NT & NTC Non-FFC Engines – CoreFree™	AR4283	196845	Without Pulley Pancake 5-1/2" Bore Short Shaft	NH230, NH250, NHC270, NHE225 Diesel, NT280, NT300, NT310, NT335, NT380, NTA380, NTC280, NTC335, NTC350 Diesel Engines	14.0 lbs.	5	-	-
RW1198X	Remanufactured Water Pump for Cummins NH, NT & NTC Engines	AR4283	196845	Without Pulley Pancake 5-1/2" Bore Short Shaft	NH230, NH250, NHC270, NHE225 Diesel, NT280, NT300, NT310, NT335, NT380, NTA380, NTC280, NTC335, NTC350 Diesel Engines	14.0 lbs.	5	WP1004	-
RW4054X	Reman. Water Pump for Cummins NT & NTC Engine	AR4547	196830	5-1/2" Bore 1-3/4" Shaft (from bearing surface to step on shaft just below threads)	NT & NTC Engines	18.0 lbs.	1	WP1044	-
RW4055X	Reman. Water Pump for Cummins NT & NTC Engine	AR4548	196830	5-1/2" Bore 2-1/4" Shaft (from bearing surface to step on shaft just below threads)	NT & NTC Engines	18.0 lbs.	1	WP1044	-
RW6063	New Water Pump for Cummins N Series Engine	AR51360	-	-	N Series Engines	18.0 lbs.	-	-	-
RW6073	New Water Pump for Cummins N14 Series Engine	3803605 (3803361)	3069644	Multi-Groove Pulley	N14-310, 330, 350, 370, 410 Engines	26.0 lbs.	4	-	-

VT903 Engine



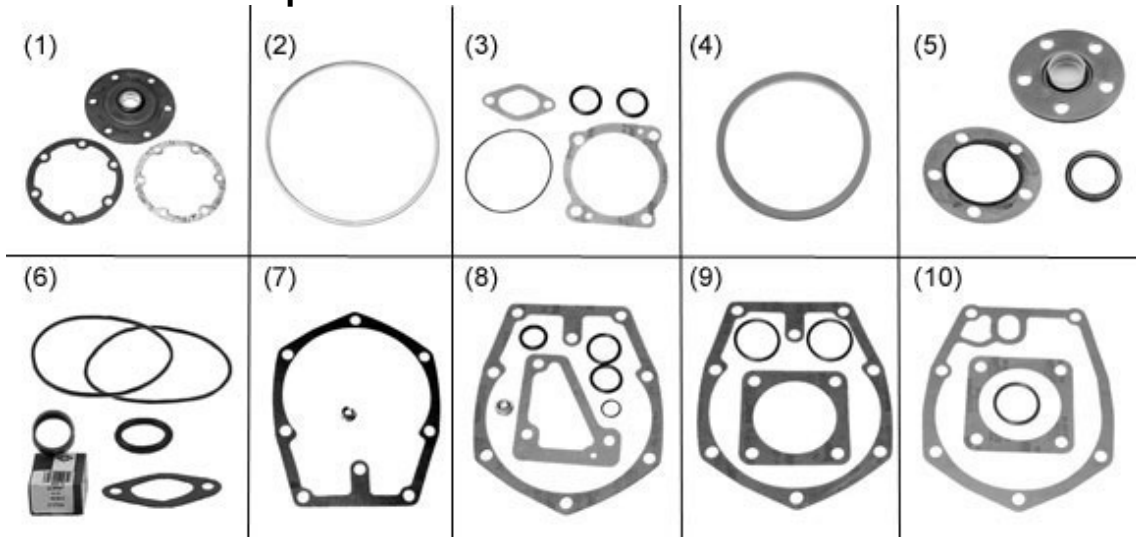
SKU#	Product Description	Manufacturer's Number	Casting Number	Description	Approximate Weight	Core Group
RW1903X	Remanufactured Water Pump for Cummins VT903 Engine	AR5664	196960	3-Belt Pulley	28 lbs.	WP1041

Idlers



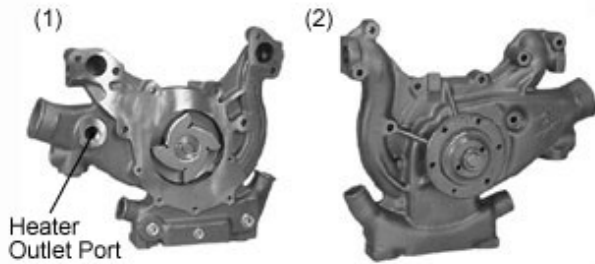
SKU#	Product Description	MFG. #	Casting #	Description	Approx. Weight	Pic. #	Core Group	New Part #
RW1074X	Reman. Idler for Cummins N-14 Engine	3066330	-	Multi-Groove Pulley	4.0 lbs.	3	WP1052	RW6074
RW1173	New Idler for Cummins Big Cam Engine	AR45189	215397	Multi-Groove Pulley	4.0 lbs.	6	-	-
RW1173RX	Reman. Idler for Cummins Big Cam Engine - CoreFree™	3064919 (AR45189)	215397	Multi-Groove Pulley	4.0 lbs.	6	-	RW1173
RW1173X	Reman. Idler for Cummins Big Cam Engine	3064919 (AR45189)	215397	Multi-Groove Pulley	4.0 lbs.	6	WP1006	RW1173
RW1175	New Idler for Cummins Small Cam Engine	3064920 (AR8851)	208118	2 Belt Pulley	4.0 lbs.	4	-	-
RW1175RX	Reman. Idler for Cummins Small Cam Engine - CoreFree™	3064920 (AR8851)	208118	2 Belt Pulley	4.0 lbs.	4	-	RW1175
RW1175X	Reman. Idler for Cummins Small Cam Engine	3064920 (AR8851)	208118	2 Belt Pulley	4.0 lbs.	4	WP1006	RW1175
RW4070RX	Reman. Idler for Cummins 88 Big Cam IV Engine - CoreFree™	3065000	-	Stamped Pulley	2.7 lbs.	5	-	RW6070
RW4070X	Reman. Idler for Cummins 88 Big Cam IV Engine	3065000	-	Stamped Pulley	2.7 lbs.	5	WP1038	RW6070
RW4071RX	Reman. Idler for Cummins 88 Big Cam IV Engine - CoreFree™	3062931 (3053537)	3064201	Multi-Groove Pulley	3.3 lbs.	2	-	RW6071
RW4071X	Reman. Idler for Cummins 88 Big Cam IV Engine	3062931 (3053537)	3064201	Multi-Groove Pulley	3.3 lbs.	2	WP1038	RW6071
RW6070	New Idler for Cummins 88 Big Cam IV Engine	3065000	-	Stamped Pulley	2.7 lbs.	5	-	-
RW6071	New Idler for Cummins 88 Big Cam IV Engine	3062931 (AR8851)	3064201	Multi-Groove Pulley	3.3 lbs.	2	-	-
RW6074	New Idler for Cummins N-14 Engine	3066330	-	Multi-Groove Pulley	4.0 lbs.	3	-	-
RW6078	New Idler for Cummins L-10 Engine	3062602	3060884	-	5.9 lbs.	1	-	-
RW6078X	Reman. Idler for Cummins L-10 Engine	3062602	3060884	-	5.9 lbs.	1	WP1032	RW6078

Installation and Repair Kits



SKU#	Product Description	Application	Pic. #
1073KIT	Gasket Kit for Cummins N-14 Engine Water Pump	RW6073, RW1073X	10
1172KIT	Gasket Kit for Cummins Small Cam & Big Cam III, IV Engines Water Pump	RW1170, RW1170X, RW1171, RW1171X, RW1172, RW1172X, RW1176, RW1176X, RW1177, RW3000, RW6061	9
1174KIT	Gasket Kit for Cummins NH, NT, & NTC Engines Water Pump	RW1174, RW1174X, RW1198X, RW4054X, RW4055X	2
1176KIT	Installation Kit for Cummins 88 Big Cam IV Engine Water Pump	RW1176X	8
1178KIT	Gasket Kit for Cummins L-10 Engine Water Pump	RW6068, RW1178X	3
1179KIT	Gasket Kit for Cummins NTC230 Engine Water Pump	RW1179, RW1179X, RW1195, RW1195X	7
4076KIT	Gasket Kit for Cummins L-10 Engine Water Pump	RW6076, RW4076X	6
6075KIT	Installation Kit for Cummins B Series Engine Water Pump	RW6075X	4
RW5072K	Front Gear Cover Seal Kit for Cummins LTA10 Series before 1991	RW1178X, RW6068, RW6076	1
RW5079K	Front Gear Cover Kit for Cummins L-10 Engine	RW4076X	5

8.2 Liter Engine



Notes:

- 1) Installation Kit listed later in this section.

SKU#	Product Description	MFG. #	Casting #	Description	Approx. Weight	Pic. #	Core Group	New Part #
RW1119RX	Reman. Water Pump for Detroit Diesel 8.2 Liter Engine – CoreFree™	8928672 8926904	8828804	No Pulley With Heater Outlet	31.0 lbs.	1	–	RW6119
RW1119X	Reman. Water Pump for Detroit Diesel 8.2 Liter Engine	8928672 8926904	8828804	No Pulley With Heater Outlet	31.0 lbs.	1	WP1030	RW6119
RW1120RX	Reman. Water Pump for Detroit Diesel 8.2 Liter Engine – CoreFree™	8922302	8820383 8924657	No Pulley Without Heater Outlet	28.6 lbs.	2	–	–
RW1120X	Reman. Water Pump for Detroit Diesel 8.2 Liter Engine	8922302	8820383 8924657	No Pulley Without Heater Outlet	28.6 lbs.	2	WP1053	–
RW6119	New Water Pump for Detroit Diesel 8.2 Liter Engine	8928672 8926904	8828804	New No Pulley With Heater Outlet	31.0 lbs.	1	–	–

53 Series Engine



Specifications:

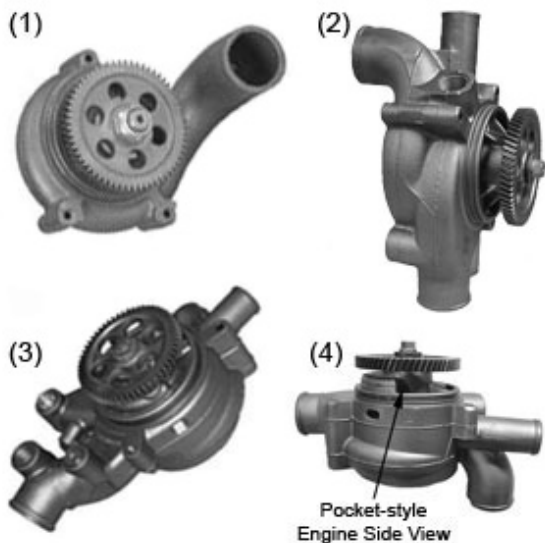
Approximate Weight 13.3 lbs.

Notes:

- 1) Installation Kit listed later in this section.

SKU#	Product Description	Manufacturer's Number	Casting Number	Description	Core Group
RW1180X	Remanufactured Water Pump for Detroit Diesel 53 Series Engine	5144685	5144688	Left Hand 2-Belt Pulley	WP1008
RW1183X	Remanufactured Water Pump for Detroit Diesel 53 Series Engine	5144686	5144689	Right Hand 2-Belt Pulley	WP1008

60 Series Engine



Notes:

- 1) Installation Kits listed later in this section.
- 2) RW4123X (High Capacity) includes a 6 vane impeller and is recommended by the OE manufacturer.
- 3) **SPECIAL NOTE:** When replacing the water pump on a Detroit 60 Series engine, always check for excessive Bull Gear Runout (wear). Excessive runout will lead to premature water pump failure. *Refer to Mfg. Specifications for acceptable Runout and Bull Gear Replacement Guidelines.

Failure to Replace Worn Bull Gear may result in:

- Excessive gear wear and chipped/broken teeth
- Broken casting near bearing journal
- Failed Bearings

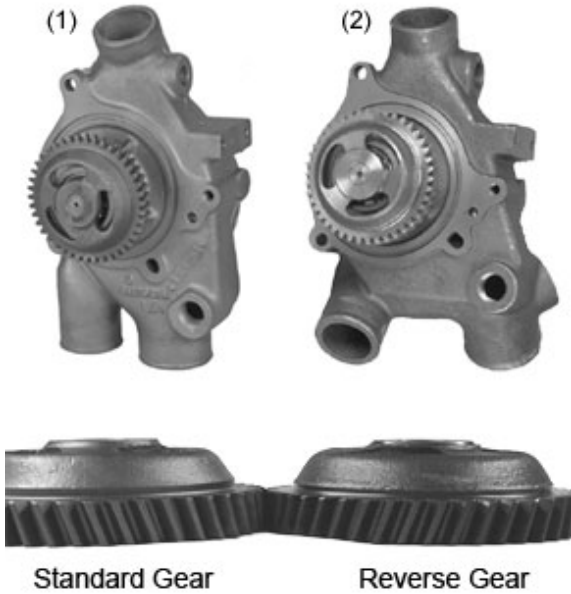
SKU#	Product Description	MFG. #	Casting #	Description	Approx. Weight	Pic. #	Core Group	New Part #
RW1160RX	Reman. Water Pump for Detroit Diesel 60 Series Engine prior to 12/90 – CoreFree™	23509067 (23505019)	23505018	Premium Seal Gear Driven	22.8 lbs.	1	-	-
RW1160X	Reman. Water Pump for Detroit Diesel 60 Series Engine prior to 12/90	23509067 (23505019)	23505018	Premium Seal Gear Driven	22.8 lbs.	1	WP1039	-
RW4122PRX	Premium Reman. Water Pump for Detroit Diesel 60 Series Engine after 12/90 – CoreFree™	23505895 23520136 R3518216	23505894	Premium Seal Metal Back Plate/Seal Gear Driven Std. Flow Capacity 7 Vane Impeller	31.3 lbs.	2	-	-
RW4122PX	Premium Reman. Water Pump for Detroit Diesel 60 Series Engine after 12/90	23505895 23520136 R3518216	23505894	Premium Seal Metal Back Plate/Seal Gear Driven Std. Flow Capacity 7 Vane Impeller	31.3 lbs.	2	WP1048	-
RW4122RX	Reman. Water Pump for Detroit Diesel 60 Series Engine after 12/90 – CoreFree™	23505895 23520136 R3518216	23505894	Premium Seal Gear Driven Std. Flow Capacity 7 Vane Impeller	30.7 lbs.	2	-	RW6123
RW4122X	Reman. Water Pump for Detroit Diesel 60 Series Engine after 12/90	23505895 23520136 R3518216	23505894	Premium Seal Gear Driven Std. Flow Capacity 7 Vane Impeller	30.7 lbs.	2	WP1048	RW6123
RW4123PRX	Premium Reman. Water Pump for Detroit Diesel 60 Series Engine – CoreFree™	23522707	23512027	Premium Seal Metal Back Plate/Seal High Flow Capacity 6 Vane Impeller	30.8 lbs.	2	-	-

RW4123PX	Premium Reman. Water Pump for Detroit Diesel 60 Series Engine	23522707	23512027	Premium Seal Metal Back Plate/Seal High Flow Capacity 6 Vane Impeller	30.8 lbs.	2	WP1048	-
RW4123RX	Reman. Water Pump for Detroit Diesel 60 Series Engine - CoreFree™	23522707	23512027	Premium Seal Plastic Back Plate High Flow Capacity 6 Vane Impeller	30.8 lbs.	2	-	RW6123
RW4123X	Reman. Water Pump for Detroit Diesel 60 Series Engine	23522707	23512027	Premium Seal Plastic Back Plate High Flow Capacity 6 Vane Impeller	30.8 lbs.	2	WP1048	RW6123
RW4124X	Reman. Water Pump for Detroit Diesel 60 Series Engine with EGR (Exhaust Gas Recirculation)	23531257	23530427	Stamped Steel Impeller 61 Tooth Drive Gear	34 lbs.	3	WP1021	-
RW4125PRX	Reman. Water Pump for Detroit Diesel 60 Series Engine "Pocket Style" - CoreFree™	-	23522721	High Flow Capacity 6 Vane Impeller "Pocket Style"	31 lbs.	2 and 4	-	RW6127
RW4125PX	Reman. Water Pump for Detroit Diesel 60 Series Engine "Pocket Style"	-	23522721	High Flow Capacity 6 Vane Impeller "Pocket Style"	31 lbs.	2 and 4	WP1048	RW6127
RW6123	New Water Pump for Detroit Diesel 60 Series Engine	23522707	23517027	Premium Seal High Flow Capacity 6 Vane Impeller	30.8 lbs.	2	-	-
RW6127	New Water Pump for Detroit Diesel 60 Series Engine "Pocket Style"	-	23522721	High Flow Capacity 6 Vane Impeller "Pocket Style"	31 lbs.	2 and 4	-	-

71 Series Engine

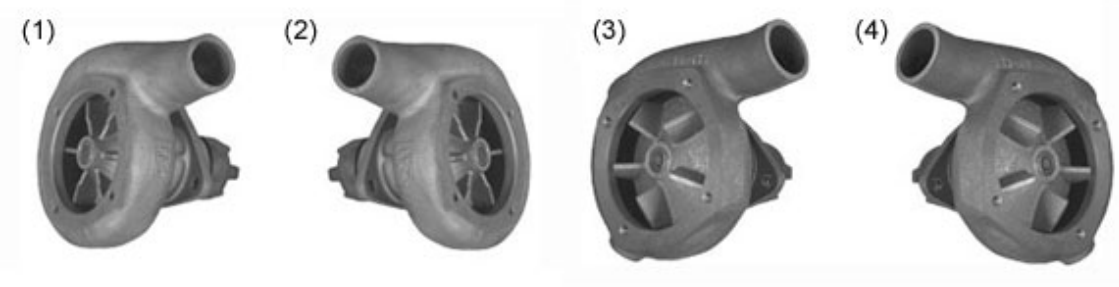
Notes:

- 1) Installation Kit listed later in this section.



SKU#	Product Description	MFG. #	Casting #	Description	Approx. Weight	Pic. #	Core Group
RW1184X	Reman. Water Pump for Detroit Diesel 6V & 8V 71 Series Engine	5149328	5117921	1-7/8" & 2-1/4" I.D. Outlets Standing Standard Capacity 2 Straight Outlet Pipes	26.8 lbs.	1	WP1011
RW1185X	Reman. Water Pump for Detroit Diesel 71 Series Engine	5149329	5142273	Standard Capacity Running 2 Outlet Pipes at 45°	25.0 lbs.	2	WP1012
RW1186X	Reman. Water Pump for Detroit Diesel 8V 71 Series Engine	5149326	5135455	1-7/8" & 2-1/4" I.D. Outlets Standing High Capacity 2 Straight Outlet Pipes	26.9 lbs.	1	WP1011
RW1187X	Reman. Water Pump for Detroit Diesel 71 Series Engine	5149327	5142273	High Capacity Running 2 Outlet Pipes at 45°	27.0 lbs.	2	WP1012
RW1196X	Reman. Water Pump for Detroit Diesel 8V 71 Series Engine	5149382	5135455	1-7/8" & 2-1/4" I.D. Outlets Standing High Capacity 2 Straight Outlet Pipes with Reverse Gear	25.8 lbs.	1	WP1011

71 Series In-Line Engine



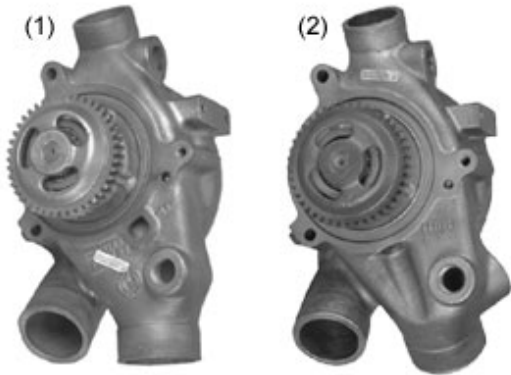
Installation Kit listed later in this section

SKU#	Product Description	MFG. #	Casting #	Description	Approx. Weight	Pic. #	Core Group
RW1181	New Water Pump for Detroit Diesel 71 Series In-Line Engine	5149707	5186574	Right Side Standard Capacity	6.9 lbs.	2	-
RW1181RX	Reman. Water Pump for Detroit Diesel 71 Series In-Line Engine - CoreFree™	5149707	5186574	Right Side Standard Capacity	6.7 lbs.	2	-
RW1181X	Reman. Water Pump for Detroit Diesel 71 Series In-Line Engine	5149707	5186574	Right Side Standard Capacity	6.7 lbs.	2	WP1009
RW1182RX	Reman. Water Pump for Detroit Diesel 71 Series In-Line Engine - CoreFree™	5149706	5186573	Left Side Standard Capacity	6.8 lbs.	1	-
RW1182X	Reman. Water Pump for Detroit Diesel 71 Series In-Line Engine	5149706	5186573	Left Side Standard Capacity	6.8 lbs.	1	WP1009
RW1192X	Reman. Water Pump for Detroit Diesel 71 Series In-Line Engine	5149708	5182070	Right Hand 3/8" Thread High Capacity Applications normally used with Turbo	6.9 lbs.	4	WP1010
RW1193X	Reman. Water Pump for Detroit Diesel 71 Series In-Line Engine	5149710	5182069	Left Hand 3/8" Thread High Capacity Applications normally used with Turbo	6.8 lbs.	3	WP1010
RW1197X	Reman. Water Pump for Detroit Diesel 71 Series In-Line Engine	5149708	5182070	Right Hand 1/4" Thread High Capacity Applications normally used with Turbo	7.0 lbs.	4	WP1036

92 Series Engine

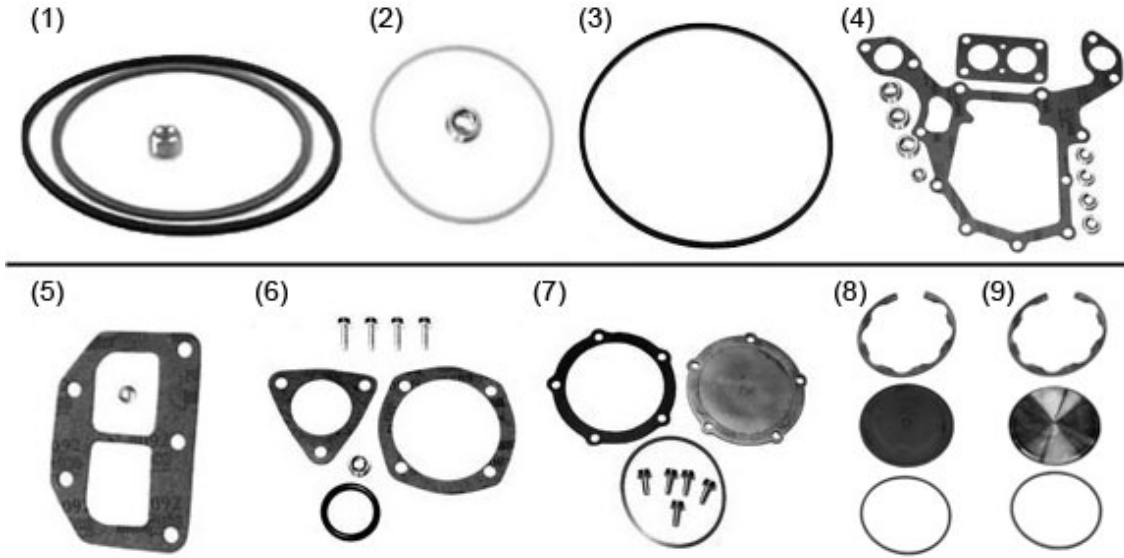
Notes:

- 1) Installation Kit listed later in this section.



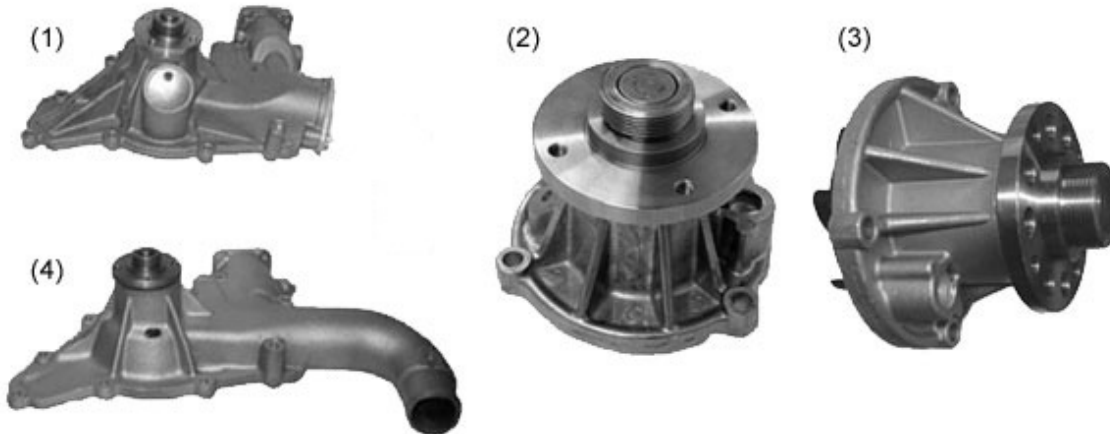
SKU#	Product Description	MFG. #	Casting #	Description	Approx. Weight	Pic. #	Core Group
RW1188X	Reman. Water Pump for Detroit Diesel 92 Series Engine	8921104	8921099	Gear Driven Running 2 Outlet Pipes at 45° Snap Ring Cover	31 lbs.	2	WP1014
RW1189RX	Reman. Water Pump for Detroit Diesel 6V & 8V 92 Series Engine – CoreFree™	8921105	8921100, 5101261	2-1/4" & 2-1/2" I.D. Outlets Walking 1 Straight & 1@ 45° Outlet Pipe Snap Ring Cover	28 lbs.	1	–
RW1189X	Reman. Water Pump for Detroit Diesel 6V & 8V 92 Series Engine	8921105	8921100, 5101261	2-1/4" & 2-1/2" I.D. Outlets Walking 1 Straight & 1@ 45° Outlet Pipe Snap Ring Cover	28 lbs.	1	WP1013

Installation and Repair Kits



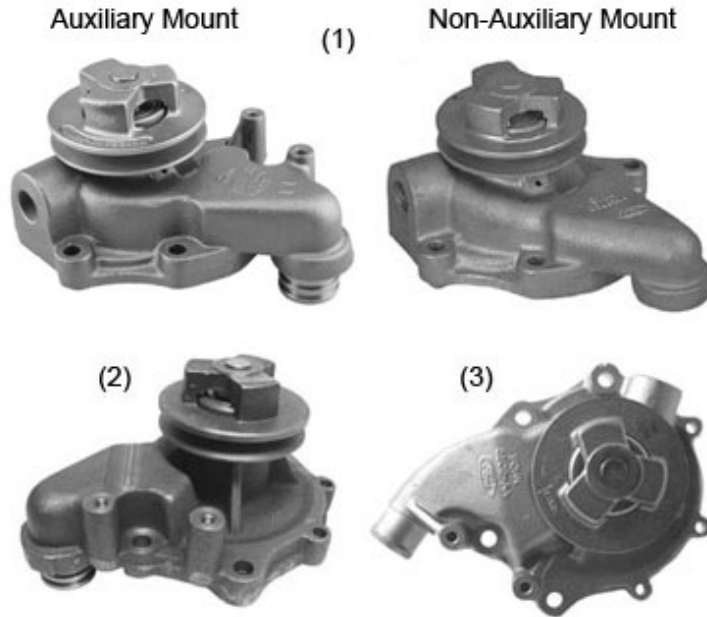
SKU#	Product Description	Application	Pic. #
1119KIT	Bracket Kit for Detroit Diesel 8.2 Liter Engine Water Pump	RW6119, RW1119X, RW1120X	4
1160KIT	Gasket Kit for Detroit Diesel 60 Series Engine Water Pump	RW6121, RW1160X	1
1180KIT	Gasket Kit for Detroit Diesel 53 Series Engine Water Pump	RW1180X, RW1183X	5
1181KIT	Gasket Kit for Detroit Diesel 71 Series Engine Water Pump	RW1181, RW1181X, RW1182, RW1182X	6
1184KIT	Gasket Kit for Detroit Diesel 71 Series Engines Water Pump	RW1184X, RW1185X, RW1186X, RW1187X, RW1196X	7
1189KIT	Gasket Kit for Detroit Diesel Engine – 92 Series Water Pump	RW1188, RW1189	3
4122KIT	Gasket Kit for Detroit Diesel 60 Series Engine Water Pump	RW6122, RW4122X	2
RW4122PLK	Plastic Backing Plate Kit for Detroit Diesel 60 Series Engine Water Pump	RW6122, RW4122X	8
RW4122STK	Steel Backing Plate Kit for Detroit Diesel 60 Series Engine Water Pump	RW6122, RW4122X	9

Ford Powerstroke



SKU#	Product Description	Application	Casting Number	OEM Part Numbers	Approx. Weight	Core Group	Pic. #
RW1767	New Water Pump for Ford Powerstroke – 7.3L (466) DI Turbo Diesel Engine	2000–2002 E150/E350 2000–2002 Excursion 1996–2002 F250, F350, F450, F550 Super Duty 1996–1997 F53/59 Stripped Chassis	1831005C2	F6TZ–8501AA F7TZ–8501BRM F81Z–8501A F81Z–8501B F81Z–8501CRM F81Z–8501FA F7TZ–8501B F7TZ–8501C	11 lbs.	–	1
RW1767X	Reman. Water Pump for Ford Powerstroke – 7.3L (466) DI Turbo Diesel Engine	2000–2002 E150/E350 2000–2002 Excursion 1996–2002 F250, F350, F450, F550 Super Duty 1996–1997 F53/59 Stripped Chassis	1831005C2	F6TZ–8501AA F7TZ–8501BRM F81Z–8501A F81Z–8501B F81Z–8501CRM F81Z–8501FA F7TZ–8501B F7TZ–8501C	11 lbs.	WP1064	1
RW1768	New Water Pump for Ford Powerstroke – 6.0L Turbo Diesel Engine	2003–June 2004 Super Duty	–	3C3Z8501A	7 lbs.	–	2
RW1769	New Water Pump for Ford Powerstroke – 6.0L Turbo Diesel Engine	July 2004–Current Super Duty	–	4C3Z8501AB	7 lbs.	–	3
RW6310	New Water Pump for Ford Powerstroke – 7.3L (466) DI Turbo Diesel Engine	94–96 Super Duty	–	F5TZ–8501B F5TZ–8501C	10 lbs.	–	4

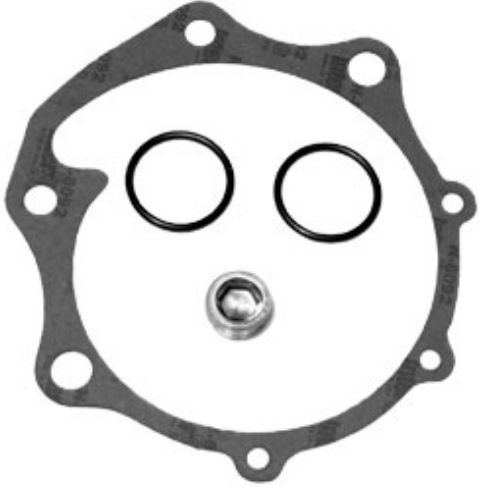
6.6 and 7.8 Liter Engine



Installation Kit listed later in this section.

SKU#	Product Description	Manufacturer's Number	Casting Number	Description	Approx. Weight	Core Group	Pic. #
RW1760RX	Reman. Water Pump for Ford 6.6 & 7.8 Liter Engines – CoreFree™	E9TZ8501B	E7HN8508AA	Auxiliary Mount 3/4" Outlet Cab Over	18.4 lbs.	–	1
RW1760X	Reman. Water Pump for Ford 6.6 & 7.8 Liter Engines	E9TZ8501B	E7HN8508AA	Auxiliary Mount 3/4" Outlet Cab Over	18.4 lbs.	WP1046	1
RW1761RX	Reman. Water Pump for Ford 6.6 & 7.8 Liter Engines – CoreFree™	E7TZ8501A	E5HN8508AB	Non-Auxiliary Mount 1" Outlet Conventional Cab	16.8 lbs.	–	1
RW1761X	Reman. Water Pump for Ford 6.6 & 7.8 Liter Engines	E7TZ8501A	E5HN8508AB	Non-Auxiliary Mount 1" Outlet Conventional Cab	16.8 lbs.	WP1058	1
RW1762	New Water Pump for Ford 7.8 Liter Engine	F1HZ8501CRM	F0HN8505AA	91–93 Ford Truck (94 F600 only) w/o Pump Mounted Fan	16.2 lbs.	–	3
RW1762X	Reman. Water Pump for Ford 7.8 Liter Engine	F1HZ8501CRM	F0HN8505AA	91–93 Ford Truck (94 F600 only) w/o Pump Mounted Fan	16.2 lbs.	WP1061	3
RW6314	New Water Pump for Ford 6.6 & 7.8 Liter (Brazilian)	E7HN8A513AB E8HZ8501B	–	–	16 lbs.	–	2

Installation Kits



SKU#	Product Description	Application
1760KIT	Gasket Kit for Ford 6.6 & 7.8 Engine Water Pump	RW1760X, RW1761X, RW1762X

6 to 7 Liter Engine



SKU#	Product Description	MFG. #	Casting #	Description	Application	Approx. Weight	Pic. #	Core Group
RW1406	New Water Pump for General Motors 6.2 Liter Engine	14082745 (23500133)	14024206	Belt Driven Conventional Cab Pulley Not Supplied	1986-90 Chev & GMC	15 lbs.	1	-
RW1406X	Remanufactured Water Pump for General Motors 6.2 Liter Engine	14082745 (23500133)	14024206	Belt Driven Conventional Cab Pulley Not Supplied	1986-90 Chev & GMC	15 lbs.	1	WP1015
RW1408X	Remanufactured Water Pump for General Motors 366 & 427 Engines	14002440	14001939	Standard Hub	6.0 & 7.0 Liter Engines 1979-84 All 1976-78 CE-ME65 with Front End Drive	24 lbs.	2	WP1059
RW1409X	Remanufactured Water Pump for General Motors 366 & 427 Engines	6258548	3856286	Screw-On Hub	6.0 & 7.0 Liter Engines 1969-78 All CE-ME65 with Front End Drive	24 lbs.	2	WP1059

Duramax 6.6 Liter Engine



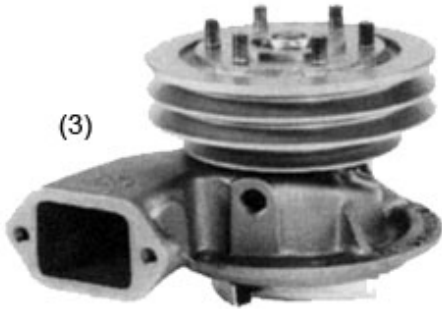
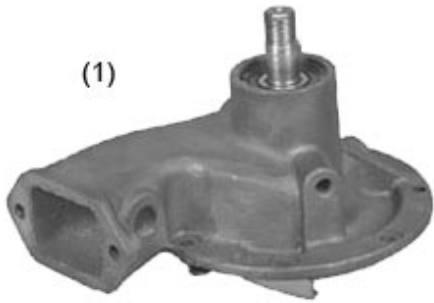
SKU#	Product Description	MFG. #	Casting #	Application	Approx. Weight	Core Group
RW1463	New Water Pump for General Motors 6.6 Liter Duramax Diesel Engines	97216136	-	GM Duramax 6.6L Diesel	6 lbs.	-

ACET Engines



SKU#	Product Description	MFG. #	Casting #	Description	Approx. Weight	Core Group
RW2008X	Reman. Water Pump for Mack ACET Engines	315GC3193	2739-17	Pulley 5.3" Diameter Smooth	14 lbs.	WP1037
RW2009X	Reman. Water Pump for Mack ACET Engines	316GC3196	2738-17	Pulley 5.9" Diameter Smooth	14 lbs.	WP1037

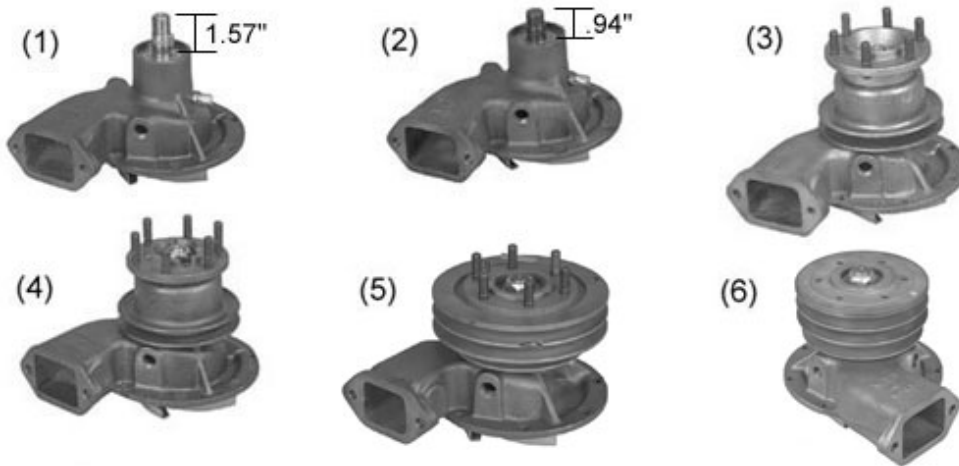
END 673, 675, 676 & E-6 Engine



Installation Kit listed later in this section.

SKU#	Product Description	MFG. #	Casting #	Description	Approx. Weight	Pic. #	Core Group	New Part #
RW2000X	Reman. Thermodyne Water Pump for Mack END 673, 675, 676 Engines	316GC184	360GB334	Short Shaft Without Pulley	12.2 lbs.	1	WP1020	-
RW4215X	Reman. Econodyne Water Pump for Mack E-6 Engines	316GC1219AX	360GB443	Flush Impeller Without Pulley	13.0 lbs.	2	WP1023	RW6215
RW4219X	Reman. Water Pump for Mack E-6 Engines	316GC549MX	360GB443A	Stamped Impeller 3 Groove 7-1/4" Pulley	24.5 lbs.	3	WP1071	-
RW6215	New Econodyne Water Pump for Mack E-6 Engines	316GC1219AX	360GB443	Flush Impeller Without Pulley	13.0 lbs.	2	-	-

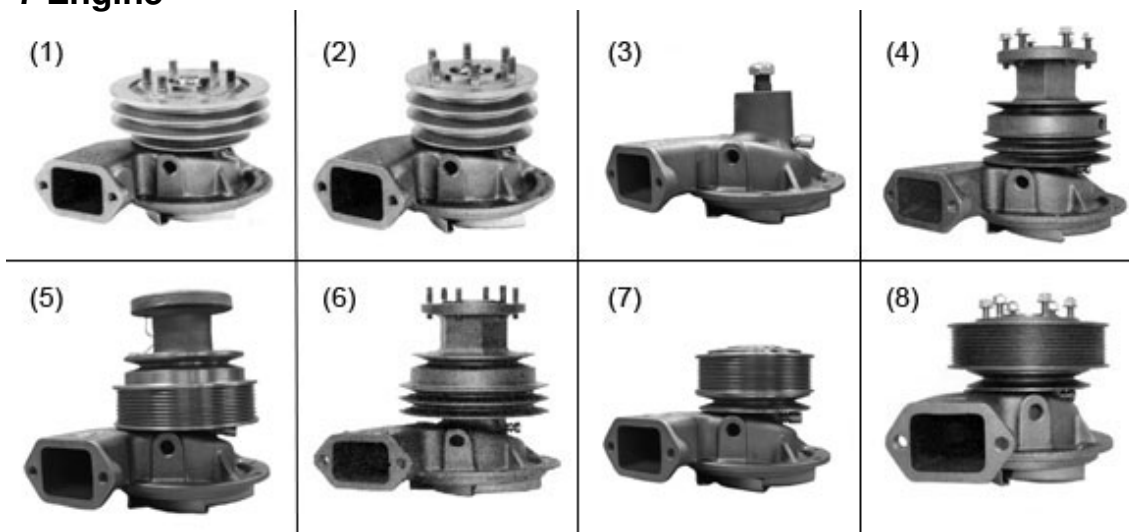
ENDT 675, 676 & EMS-6 Engine



Installation Kit listed later in this section.

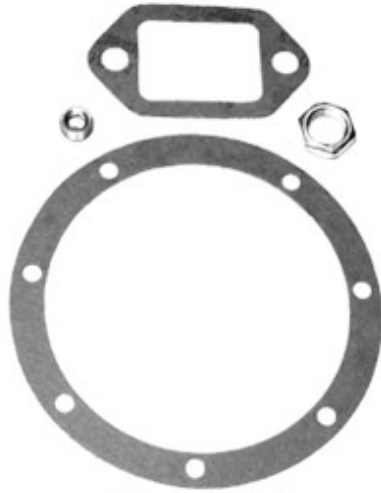
SKU#	Product Description	MFG. #	Casting #	Description	Approx. Weight	Pic. #	Core Group	New Part #
RW2001	New Maxidyne Water Pump for Mack ENDT 675, 676 Engines	316GC1184	316GB443 316GC1211A 316GC1211B	1.57" Long Shaft No Pulley	13.0 lbs.	1	-	-
RW2001X	Reman. Maxidyne Water Pump for Mack ENDT 675, 676 Engines	316GC1184	360GB443 316GC1211A 316GC1211B	1.57" Long Shaft No Pulley	13.0 lbs.	1	WP1023	RW2001
RW2002	New Econodyne Water Pump for Mack E6, EM6 & EMS-6 Engine	316GC1210A	316GB443	Charged Air No Pulley .94" Long Shaft	13.0 lbs.	2	-	-
RW2002X	Reman. Econodyne Water Pump for Mack E6, EM6 & EMS-6 Engines	316GC1210A	360GB443	Charged Air No Pulley .94" Long Shaft	13.0 lbs.	2	WP1023	RW2002
RW2005X	Reman. Water Pump for Mack ENDT 675 & 676 Engines	316GC1184BX	360GB443	Long Shaft With Pulley Stamped Impeller	16.0 lbs.	3	WP1022	-
RW2006X	Reman. Water Pump for Mack ENDT 675 & 676 Engines	316GC1211AX	360GB443	Long Shaft with Notched Hub Pulley Fan Clutch Application	17.6 lbs.	4	WP1022	-
RW4209X	Reman. Econodyne Water Pump for Mack E6, EM6 & EMS-6 Engines	316GC1210AX	360GB443	Charged Air 3-Groove 6-5/8" Diameter Pulley	23.0 lbs.	5	WP1022	-
RW4210X	Reman. Econodyne Water Pump for Mack E6, EM6 & EMS-6 Engines	316GC528CX	360GB443	Charged Air 3-Groove 5-1/2" Diameter Pulley Stamped Impeller	20.0 lbs.	6	WP1022	-

E-7 Engine



SKU#	Product Description	MFG. #	Casting #	Description	Approx. Weight	Pic. #	Core Group
RW4217X	Reman. Water Pump for Mack E-7 Engines	316GC548M2X	360GB251AM	Metric Housing Stamped Impeller 3 Groove 7-1/4" Diameter Pulley	24.5 lbs.	1	WP1071
RW4218X	Reman. Water Pump for Mack E-7 Engines	316GC548MX	360GB251AM	Metric Housing Stamped Impeller 3 Groove 5-1/2" Diameter Pulley	20.0 lbs.	2	WP1071
RW4220X	Reman. Water Pump for Mack E-7 Engines	Base 316GC284	360GB251AM	Metric Housing Stamped Impeller Base Pump with 6-19/64" shaft length No Pulley	13.0 lbs.	3	WP1070
RW4221X	Reman. Water Pump for Mack E-7 Engines	Base 316GC285	360GB251AM	Base Pump with 7-1/4" shaft length No Pulley	13.0 lbs.	3	WP1080
RW4222X	Reman. Water Pump for Mack E-7 Engines	316GC551M3X	360GB251AM	Multi-Groove 5" Diameter Pulley	-	4	WP1071
RW4223X	Reman. Water Pump for Mack E-7 Engines	316GC548M4X	360GB251AM	3 Groove 6-5/8" Diameter Pulley	-	1	WP1071
RW4224X	Reman. Water Pump for Mack E-7 Engines	316GC4108MX	360GB251AM	With Pulley	-	6	WP1081
RW4226X	Reman. Water Pump for Mack E-7 Engines	316GC551M2X	360GB251AM	Metric Housing Multi-Groove 5-1/2" Diameter Pulley	24.0 lbs.	7	WP1071
RW4227X	Reman. Water Pump for Mack E-7 Engines	316GC551MX	360GB251AM	Multi-Groove 6" Diameter Pulley	-	8	WP1071
RW4229X	Reman. Water Pump for Mack E-7 Engines	316GC552M2X	-	Cast Multi-Groove Pulley	24.0 lbs.	5	WP1081

Installation Kits



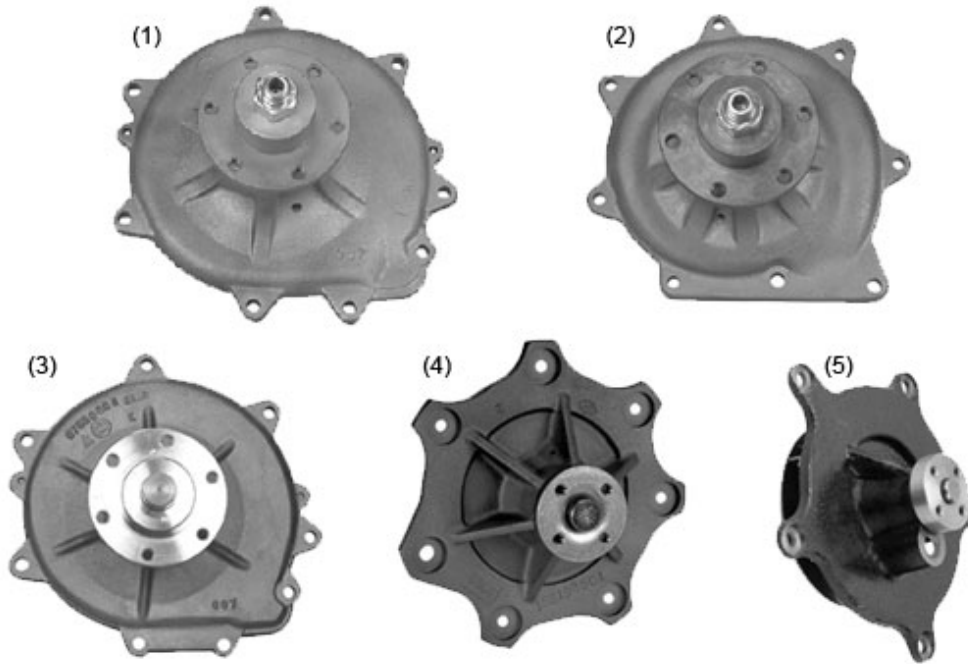
2001KIT



2005KIT

SKU#	Product Description	Application
2001KIT	Gasket Kit for Mack ENDT 675, 676 & EMS-6 Engines Water Pump	RW2000, RW2000X, RW2001, RW2001X, RW2002, RW2002X, RW4215X, RW6215
2005KIT	Gasket Kit for Mack ENDT675, 676 & EMS-6 Engines Water Pump	RW2005X, RW2006X, RW4209X, RW4210X, RW6214, RW6216, RW6217

DT360, 414, 415, 466 & DTA360 Engine

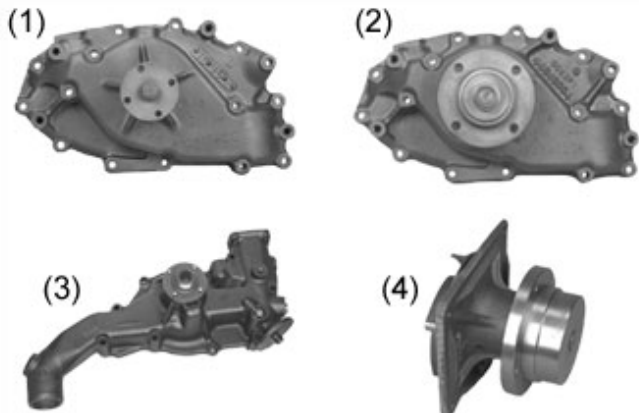


Installation Kit listed later in this section

SKU#	Product Description	MFG. #	Casting #	Description	Approx. Weight	Pic. #	Core Group	New Part #
RW1190	New Water Pump for Navistar DT466 Engine	685155C92	677856C1	Belt Driven Conventional Cab Pulley Not Supplied	19.2 lbs.	1	-	-
RW1190RX	Reman. Water Pump for Navistar DT466 Engine – CoreFree™	685155C92	677856C1	Belt Driven Conventional Cab Pulley Not Supplied	19.2 lbs.	1	-	RW1190
RW1190X	Reman. Water Pump for Navistar DT466 Engine	685155C92	677856C1	Belt Driven Conventional Cab Pulley Not Supplied	19.2 lbs.	1	WP1016	RW1190
RW1191	New Water Pump for Navistar DT466 Engines	680899C92	677137C1	Belt Driven Cab Over Pulley Not Supplied	17.1 lbs.	2	-	-
RW1191X	Reman. Water Pump for Navistar DT466 Engines	680899C92	677137C1	Belt Driven Cab Over Pulley Not Supplied	17.1 lbs.	2	WP1017	RW1191
RW1303X	Reman. Water Pump for Navistar DT466, DT414, & DT456 Engines	673162C94	675806C2	Belt Driven Press-On Hub	18.0 lbs.	3	WP1017	-
RW1304RX	Reman. Water Pump for Navistar DTA360 & DT466 Engines – CoreFree™	1815538C91	677856C3	Belt Driven Bolt On Hub Left Hand Thread Pulley Not Supplied	22.0 lbs.	1	-	RW6307

RW1304X	Reman. Water Pump for Navistar DTA360 & DT466 Engines	1815538C91	677856C3	Belt Driven Bolt On Hub Left Hand Thread Pulley Not Supplied	22.0 lbs.	1	WP1016	RW6307
RW1310X	Reman. Water Pump for Navistar DT360 & DT466 New Generation Engines	1817687C92	1821935C1 1821935C3	Stamped Steel Impeller	10.0 lbs.	4	WP1060	RW6313
RW6307	New Water Pump for Navistar DTA360 & DT466 Engines	1815538C91	677856C3	Belt Driven Bolt On Hub Left Hand Thread Pulley Not Supplied	22.0 lbs.	1	-	-
RW6311	New Water Pump for International DT466 & DT466E Engines	1842664C92	1841765C1	Bolt on Pulley 5 Bolt Pump	3.5 lbs.	5	-	-
RW6313	New Water Pump for Navistar DT360 & DT466 New Generation Engines	1817687C92	1821935C1 1821935C3	Stamped Steel Impeller	10.0 lbs.	4	-	-

6.9, 7.3, 9.0 Liters & DT444E Engine



Notes:

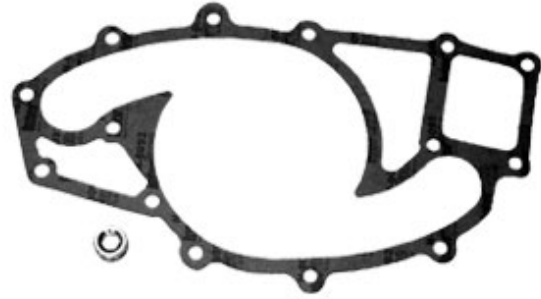
- 1) Installation Kit listed later in this section.

SKU#	Product Description	MFG. #	Casting #	Description	Approx. Weight	Pic. #	Core Group	New Part #
RW1747	New Water Pump for Navistar 6.9 & 7.3 Liter Engines	1809374C91	446430C1	Belt Driven 2-5/8" Hub O.D. Pulley Not Supplied	17.0 lbs.	1	-	-
RW1747X	Reman. Water Pump for Navistar 6.9 & 7.3 Liter Engines	1809374C91	446430C1	Belt Driven 2-5/8" Hub O.D. Pulley Not Supplied	17.0 lbs.	1	WP1019	RW1747
RW1757	New Water Pump for Navistar 6.9 & 7.3 Liter (Ford Truck) Engines	E4TZ-8501C (E9TZ-8501B)	446430C1	Belt Driven 4-1/2" Hub O.D. Pulley Not Supplied	18.8 lbs.	2	-	-
RW1757RX	Reman. Water Pump for Navistar 6.9 & 7.3 Liter (Ford Truck) Engines - CoreFree™	E4TZ-8501C (E9TZ-8501B)	446430C1	Belt Driven 4-1/2" Hub O.D. Pulley Not Supplied	18.8 lbs.	2	-	RW1757
RW1757X	Reman. Water Pump for Navistar 6.9 & 7.3 Liter (Ford Truck) Engines	E4TZ-8501C (E9TZ-8501B)	446430C1	Belt Driven 4-1/2" Hub O.D. Pulley Not Supplied	18.8 lbs.	2	WP1018	RW1757
RW4114X	Reman. Water Pump for Navistar 7.3 Liter DT444E Engine	1831676C91 1823669C92 1831676C92	1822851C1	Direct Injection	26.8 lbs.	3	WP1062	RW6114
RW6114	New Water Pump for Navistar 7.3 Liter DT444E Engine	1831676C91 1823669C92 1831676C92	1822851C1	Direct Injection	26.8 lbs.	3	-	-
RW6306	New Water Pump for Navistar 9.0 Liter Engines	1700594C91 1700594C92	489173C1	Belt Driven	10.3 lbs.	4	-	-
RW6306X	Reman. Water Pump for Navistar 9.0 Liter Engines	1700594C91 1700594C92	489173C1	Belt Driven	10.3 lbs.	4	WP1049	RW6306

Installation Kits



1190KIT



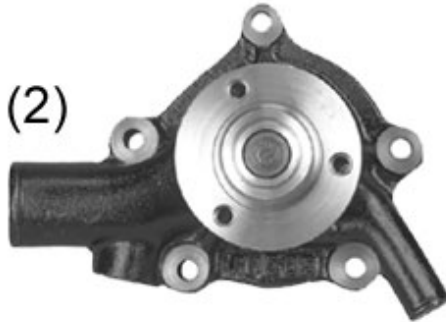
1747KIT

SKU#	Product Description	Application
1190KIT	Gasket Kit for Navistar Engines Water Pump	RW1190, RW1190X, RW1303X, RW1304X
1747KIT	Gasket Kit for Navistar 6.9 & 7.3 Liter Engines Water Pump	RW1747, RW1747X, RW1757, RW1757X

Isuzu 2.2 Liter and C-201 Engine

Notes:

- 1) Installation Kit listed later in this section.



SKU#	Product Description	MFG. #	Casting #	Description	Approx. Weight	Pic. #	Core Group
RW1199	New Water Pump for Thermo-King Isuzu C-201 Engine	11-4576	PH374	-	9.6 lbs.	1	-
RW1199X	Reman. Water Pump for Thermo-King Isuzu C-201 Engine	11-4576	PH374	-	9.6 lbs.	1	WP1024
RW1351	New Water Pump for Thermo-King Isuzu 2.2 Liter Engine	11-5858	M-1/M-2	with Threaded Auxiliary Port	6.8 lbs.	2	-
RW1351X	Reman. Water Pump for Thermo-King Isuzu 2.2 Liter Engine	11-5858	M-1/M-2	with Threaded Auxiliary Port	6.8 lbs.	2	WP1024
RW1352X	Reman. Water Pump for Thermo-King Isuzu 2.2 Liter Engine	11-5858	M-1/M-2	without Auxiliary Port	6.7 lbs.	2	WP1024
RW6352	New Water Pump for Thermo-King Isuzu 2.2 Liter Engine	11-5858	M-1/M-2	without Auxiliary Port	6.7 lbs.	2	-

Installation Kit



SKU#	Product Description	Application
1351KIT	Gasket Kit for Thermo-King Isuzu 2.2 Liter Engine Water Pump	RW1351X

TROUBLESHOOTING

BROKEN WATER PUMP BEARINGS OR SHAFTS ARE CAUSED BY ONE OR MORE OF THE FOLLOWING CONDITIONS:

EXCESSIVE ENGINE ACCELERATION. Rapid engine accelerations, particularly in low gear during quick getaways, place heavy overloads on the bearing. Any minor imbalance can be amplified during rapid acceleration and high speeds, which can result in severe whipping action and sudden fractures.

DEFECTIVE FAN. Relatively minor fan defects can impose substantial strain on the water pump shaft at 3000 to 5000 RPM. A small piece of fan blade missing can result in tremendous adverse centrifugal force. Fatigue cracks near the rivets can cause blade shift or vibration. Bent fan blades can also cause serious load problems.

FAN NOT SQUARE WITH SHAFT. It is extremely important that the fan is mounted square to the center line of the shaft. If it is not square, the fan will wobble, causing vibrations to develop. This is particularly important where shaft spacers are used to move the fan closer to the radiator. The mounting bolts, if not properly torqued, will cause the fan to be tilted and may result in permanent deformation of the spacer.

BENT OR CRACKED PULLEYS. Damaging vibration can result from bent or cracked pulleys. This usually happens when a pulley is improperly handled or installed.

FAN BELT TOO TIGHT. An overtightened fan belt can overload the bearing, resulting in shorter than ordinary fatigue life. It also causes bending of the shaft. Sudden accelerations cause large unbalanced loads, excessive shaft bending and early shaft failure.

SHAFT FAILURE CAUSED BY IMBALANCE

Examination of a failed water pump shaft will reveal the probable cause of failure. Discoloration around the fracture indicates unusually high temperatures caused by centrifugal forces due to imbalance. A small amount of imbalance can result in tremendous pressure on the shaft at operating RPM. The overload is concentrated at one point of the shaft and eventually the shaft snaps.

Lack of discoloration at the break indicates no heat buildup occurred before a sudden vibratory overload of the shaft caused a clean, instantaneous fracture. Rapid acceleration of the engine coupled with imbalance in the shaft is the cause. Small vibrations can be amplified during rapid acceleration and when combined with other engine vibrations can result in an instantaneous shaft fracture.

PREVENT WATER PUMP FAILURE WITH THESE COMMON SENSE RULES

ALWAYS TIGHTEN FAN BELTS PROPERLY. Drive belt tension should be 1/2" to 3/4" deflection with light pressure applied midway between pulleys.

NEVER HAMMER BEARING SHAFT. Often it is necessary to tap the pump to get it properly aligned during installation. It is very important not to tap on the shaft, as this results in ball race and ball damage. This can cause anything from a noisy pump to an early failure and even a fracture of the shaft.

BE SURE FAN IS SEATED SQUARE WITH THE PUMP SHAFT AND FAN CLUTCH IS NOT DEFECTIVE. Fan wobble during rotation will cause the shaft to vibrate, contributing to bearing or shaft failure.

ALWAYS REPLACE DAMAGED FANS. Never straighten bent blades; replace the complete fan. Stress cracks and loose rivets in the blades can go undetected and cause a catastrophic failure. If a fan breaks, it can cause serious personal injuries and vehicle damage.

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Raleigh, North Carolina 27604
www.CARQUEST.com



HWP
2010